OCCUPATIONAL INJURIES AND DISEASES IN ALBERTA

Lost-Time Claims, Disabling Injury Claims and Claim Rates

Construction and Construction Trade Services Industries 2006 to 2010

WORK SAFE ALBERTA

Summer 2011

Government of Alberta

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HIGHLIGHTS

Lower lost-time claim and disabling injury rates in 2010.

- The 2010 lost-time claim rate for the Construction and Construction Trade Services industries decreased by 10.1% from 2009, to 1.39 per 100 person-years worked. The average lost-time claim rate for all sectors in the province was 1.41 per 100 person-years worked.
- The disabling injury rate decreased by 11.1% in 2010, to 3.10 per 100 person-years worked. The average disabling injury rate for all sectors in the province was 2.67 per 100 person-years worked.
- Lost-time claims decreased by 6.3% and disabling injury claims decreased by 7.4%. The person-years worked estimates increased by 4.2%.

Largest employers experienced the lowest lost-time claim rates.

- Employers with 100 or more person-years worked had the lowest lost-time claim rate, 0.68. Employers with less than 10 person-years worked had the highest lost-time claim rates at 2.12 per 100 person-years worked.
- For disabling injury rates, employers with 40 to 99 person-years worked displayed the highest rate at 3.56 per 100 person-years worked and employers with less than 10 person-years worked the lowest rate, 2.54.

Injury rates decreased in all sub-sectors since 2006.

- All the Construction and Construction Trade Services sub-sectors experienced decreases in lost-time claim rates and disabling injury rates since 2006. The Scaffolders sub-sector experienced the largest decrease in its lost-time claim rate since 2006, 54.7%.
- The Scaffolders sub-sector had the lowest lost-time claim rate at 0.47 per 100 person-years worked and the Roofers sub-sector the highest lost-time claim rate at 2.96 per 100 person-years worked.
- Sprains, strains and tears continued to be the leading nature of injury, accounting for 47.7% of the disabling injury claims submitted in the Construction and Construction Trade Services industries.
- The median work days lost was 12, compared to the provincial figure of seven. The average days lost per claim was 36, compared to the average for all sectors in the province, 23 days lost per claim.

A few notes about this report:

- This report presents 2010 data beside 2009 data to help with comparisons. Additional historical data are presented where possible.
- Information presented in this report is based on incidents that occurred during 2010 and were accepted as lost-time or modified work claims by Workers' Compensation Board (WCB) as of March 31, 2011.
- As the *OID 2010 Construction and Construction Trade Services Industries* report provides an industry level comparison, this report is not comparable to previous years OID Alberta Construction Safety Association industries reports.
- Injury claim rates based on a small number of person-years worked are too volatile to make valid comparisons over time. Therefore, claim rates are not calculated when there are fewer than 40 person-years worked.
- Estimates of year-over-year change for rates presented in this report are calculated using unrounded figures and may not match those produced from rounded figures. Percentages displayed in tables may also not total 100, due to rounding.
- Throughout the report, the lost-time claim rate is the number of lost-time claims per 100 person-years worked, the disabling injury rate is the number of disabling injury claims per 100 person-years worked. Fatality rates are expressed as the number of fatalities per million person-years worked.
- Analyses by industry are based on WCB industry classification and aggregation. For more information see the industry rate manual on the WCB website.
- Analyses by occupation group are based on the National Occupational Classification (NOC). The NOC provides a standard list of occupations across the country. For more information see http://www5.hrsdc.gc.ca/NOC.
- Occupational injuries and diseases listed throughout this report are based on the Z795 Coding of Work Injury or Disease Information produced by the Canadian Standards Association (CSA) for categorizing occupational injury and disease. For information see http://www.shopcsa.ca/onlinestore/GetCatalogItemDetails.asp?mat=2416404.
- Terms, definitions and formulas used throughout this report are described in Appendix A.

INDUSTRY SECTOR SUMMARY

The 2010 lost-time claim rate for the Construction and Construction Trade Services industries decreased by 10.1% and the disabling injury rate decreased by 11.1% from 2009.

In 2010, there were 4,419 lost-time claims in the Construction and Construction Trade Services industries. The lost-time claim rate for the Construction and Construction Trade Services industries was 1.39 per 100 person-years worked, a decrease of 10.1% from 2009. The average lost-time claim rate for all sectors of the province in 2010 was 1.41 per 100 person-years worked. The disabling injury rate for the Construction and Construction Trade Services industries decreased by 11.1% in 2010, to 3.10 per 100 person-years worked (see Table 1.1). The average disabling injury rate for all sectors of the province in 2010 was 2.67 per 100 person-years worked.

The decrease in lost-time claim and disabling injury rates for the Construction and Construction Trade Services industries was a result of decreases in the number of lost-time claims and the number of disabling injury claims. The number of lost-time claims decreased by 6.3% and the number of disabling injury claims decreased by 7.4%.

Table 1.1
Construction and Construction Trade Services Industries — Alberta: 2009 - 2010

	2009	2010	% Change
Person-years worked	304,951	**317,886**	4.2%
Lost-time claims	4,714	**4,419**	-6.3%
Lost-time claim rate	**1.55**	**1.39**	**-10.1%**
Modified-work claims	8,295	**7,701**	-7.2%
Lost-time claims involving modified work	2,360	**2,254**	-4.5%
Disabling injury claims	10,649	**9,866**	-7.4%
Disabling injury rate	**3.49**	**3.10**	**-11.1%**
Days-lost (LTC)	159,797	**158,360**	-0.9%
Compensation payments (LTC)	$53,959,096	**$57,240,914**	6.1%

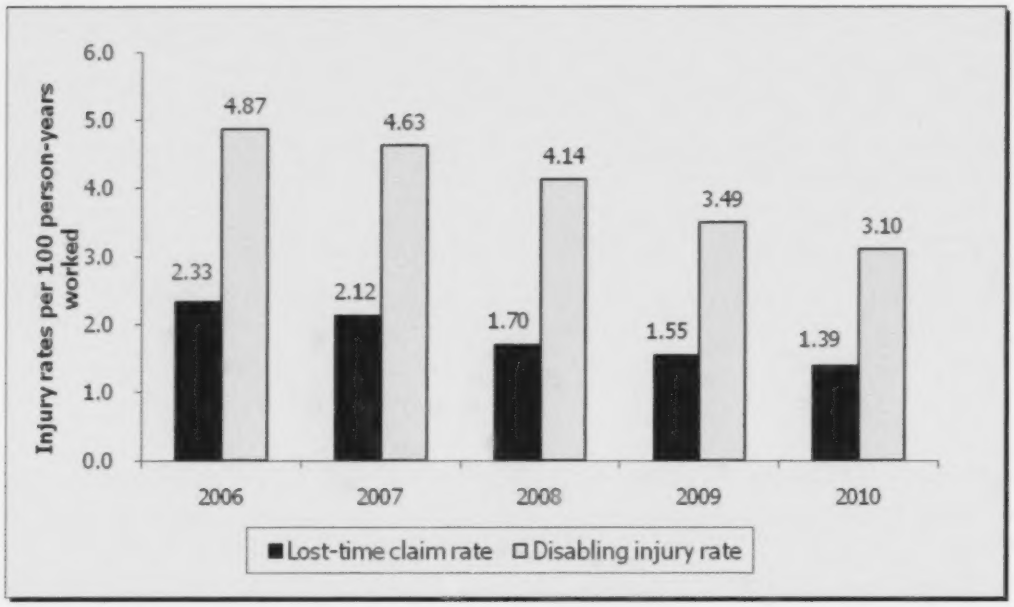
Data Source: WCB Data, Prepared by Data Development and Evaluation

In 2010, the median days-lost in the Construction and Construction Trade Services industries was 12, while the average days-lost per claims was 36. Provincially, the median days-lost was seven and the average days-lost was 23.

The average lost-time claim rate for all sectors of the province fell by 37.3% between 2006 and 2010. Over the same period, the lost-time claim rate for the Construction and Construction Trade Services industries fell by 40.3%.

Chart 1.1

Injury Rates for Construction and Construction Trade Services Industries — Alberta: 2006 - 2010



Data Source: WCB Data, Prepared by Data Development and Evaluation

Rates by Employer Size

In the Construction and Construction Trade Services industries, employers with less than 10 person-years worked had the highest lost-time claim rates at 2.12 per 100 person-years worked. Employers with 100 or more person-years worked had the lowest at 0.68 per 100 person-years worked.

For disabling injury rates, employers with 40 to 99 person-years worked displayed the highest rate at 3.56 per 100 person-years worked and employers with less than 10 person-years worked had the lowest, at 2.54 (see Table 1.2).

A low lost-time claim rate and high disabling injury rate can be indicative of proficient claims management. However, it may also be a reflection of larger employers having greater capacity to offer modified duties to injured workers than smaller employers.

Table 1.2
Lost-Time Claim Rate by Size[1] of Employer — Alberta: 2010

Size of Employer	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling injury Rate
Less than 10 person-years worked	1,329	1,597	2.12	2.54
10 to 19 person-years worked	482	757	1.78	2.80
20 to 39 person-years worked	563	1,067	1.77	3.36
40 to 99 person-years worked	740	1,587	1.66	3.56
100 or more person-years worked	1,020	4,556	0.68	3.05
Unspecified*	285	302	N/A*	N/A*

*These are employers with no payroll information or with person-years worked equal to zero.
Data Source: WCB Data, Prepared by Data Development and Evaluation

[1] Size is measured in terms of person-years worked. One person-year is equivalent to one full-time worker working for one year.

INDUSTRY SECTOR ANALYSIS

All the Construction and Construction Trade Services sub-sectors experienced decreases in lost-time claim rate and disabling injury rate since 2006.

Between 2006 and 2010, all the Construction and Construction Trade Services sub-sectors showed a decrease in lost-time claim rate (see Table 2.1). The Scaffolders sub-sector experienced the largest decrease in its lost-time claim rate since 2006, 54.7%. The Mechanical, Electrical and Insulation sub-sector experienced the smallest decrease since 2006, 32.0%.

Table 2.1
Lost-Time Claim Rate by Construction and Construction Trade Services Sub-Sector — Alberta: 2006 – 2010

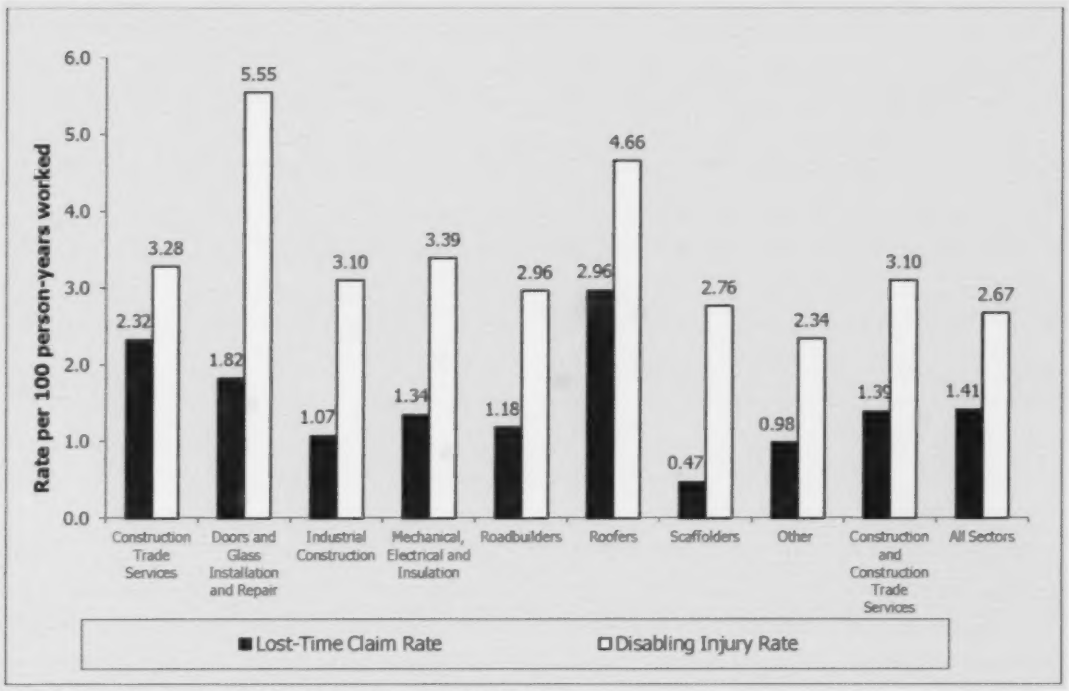
Sub-Sector	2006	2007	2008	2009	2010
Construction and Construction Trade Services	2.33	2.13	1.70	1.55	**1.39**
Construction Trade Services	3.56	3.22	2.75	2.62	**2.32**
Doors and Glass Installation and Repair	3.53	3.42	2.98	2.47	**1.82**
Industrial Construction	1.84	1.65	1.35	1.24	**1.07**
Mechanical, Electrical and Insulation	1.97	2.03	1.63	1.60	**1.34**
Roadbuilders	1.99	1.90	1.47	1.21	**1.18**
Roofers	4.78	3.63	3.32	2.92	**2.96**
Scaffolders	1.04	0.53	0.46	0.77	**0.47**
Other Construction and Construction Trade Services	1.99	1.63	1.27	1.00	**0.98**

Data Source: WCB Data. Prepared by Data Development and Evaluation

The Scaffolders sub-sector had the lowest lost-time claim rate at 0.47 per 100 person-years worked in 2010, and the Other Construction and Construction Trade Services sub-sector had the lowest disabling injury rate at 2.34 per 100 person-years worked.

In 2010, the Roofers sub-sector had the highest lost-time claim rate at 2.96 per 100 person-years worked. The Doors and Glass Installation and Repair sub-sector had the highest disabling injury rate at 5.55 per 100 person-years worked.

Chart 2.1
Lost-Time Claim and Disabling Injury Claim Rates for the Construction and Construction Trade Services Industries — Alberta: 2010



Data Source: WCB Data, Prepared by Data Development and Evaluation

Construction Trade Services

In 2010, the Construction Trade Services sub-sector had a lost-time claim rate of 2.32 per 100 person-years worked and a disabling injury rate of 3.28 per 100 person-years worked. Both rates decreased from 2009, by 11.4% and 6.0%.

The disabling injury claim rate for the Construction Trade Services sub-sector decreased in 2010 as a result of a higher increase in the number of person-years worked estimates than the increase in disabling injury claims, 7.6% compared to 1.1%. The number of lost-time claims decreased by 4.7%.

Table 2.2
Construction Trade Services — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	52,750	**56,749**	7.6%
Lost-time claims	1,381	**1,316**	-4.7%
Lost-time claim rate	**2.62**	**2.32**	**-11.4%**
Modified-work claims	1,041	**1,127**	8.3%
Lost-time claims involving modified work	580	**581**	0.2%
Disabling injury claims	1,842	**1,862**	1.1%
Disabling injury rate	**3.49**	**3.28**	**-6.0%**
Days-lost (LTC)	49,649	**52,271**	5.3%
Compensation payments (LTC)	$14,075,352	**$14,058,652**	-0.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Doors and Glass Installation and Repair

The lost-time claim rate in 2010 for the Doors and Glass Installation and Repair sub-sector decreased by 26.3%, to 1.82 per 100 person-years worked. The disabling injury rate decreased by 7.9% to 5.55 per 100 person-years worked. The disabling injury rate was the highest of all sub-sectors in the Construction and Construction Trade Services industries.

The Doors and Glass Installation and Repair sub-sector experienced a decrease in both lost-time claims and disabling injury claims in 2010 of 27.1% and 8.9% respectively.

Over the last five years, the lost-time claim rate for the Doors and Glass Installation and Repair sub-sector decreased by 48.4%. The average decrease for all sectors of the province was 37.3%.

Table 2.3
Doors and Glass Installation and Repair — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	8,933	**8,834**	-1.1%
Lost-time claims	221	**161**	-27.1%
Lost-time claim rate	**2.47**	**1.82**	**-26.3%**
Modified-work claims	443	**431**	-2.7%
Lost-time claims involving modified work	126	**102**	-19.0%
Disabling injury claims	538	**490**	-8.9%
Disabling injury rate	**6.02**	**5.55**	**-7.9%**
Days-lost (LTC)	4,776	**3,629**	-24.0%
Compensation payments (LTC)	$1,476,199	**$1,335,075**	-9.6%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Industrial Construction

The Industrial Construction sub-sector is the largest of the Construction and Construction Trade Services industries, accounting for 22.8% of the Construction and Construction Trade Services industries person-years worked. In 2010, the lost-time claim rate decreased by 13.8%, to 1.07 per 100 person-years worked as the number of lost-time claims decreased by 16.0% and the number of person-years worked decreased by 2.6%. The disabling injury rate decreased by 25.0%, to 3.10 per 100 person-years worked.

Between 2006 and 2010, the lost-time claim rate for the Industrial Construction sub-sector decreased by 41.7% compared to the average for all Construction and Construction Trade Services industries, 40.4%.

Table 2.4
Industrial Construction — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	74,362	**72,431**	-2.6%
Lost-time claims	925	**777**	-16.0%
Lost-time claim rate	**1.24**	**1.07**	**-13.8%**
Modified-work claims	2,663	**1,908**	-28.4%
Lost-time claims involving modified work	519	**442**	-14.8%
Disabling injury claims	3,069	**2,243**	-26.9%
Disabling injury rate	**4.13**	**3.10**	**-25.0%**
Days-lost (LTC)	32,094	**29,196**	-9.0%
Compensation payments (LTC)	$12,133,162	**$13,943,396**	14.9%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Mechanical, Electrical and Insulation

The lost-time claim rate for the Mechanical, Electrical and Insulation sub-sector decreased by 16.1% in 2010, to 1.34 per 100 person-years worked. The disabling injury rate fell by 9.0% in 2010, to 3.39 per 100 person-years worked (see Table 2.5).

Over the last five years, the lost-time claim rate for the Mechanical, Electrical and Insulation sub-sector decreased by 32.0%. For all Construction and Construction Trade Services industries, the average lost-time claim rate fell by 40.4% over this period. For all sectors of the province, the average lost-time claim rate fell by 37.3%.

Table 2.5
Mechanical, Electrical and Insulation — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	49,869	**54,902**	10.1%
Lost-time claims	797	**736**	-7.7%
Lost-time claim rate	**1.60**	**1.34**	**-16.1%**
Modified-work claims	1,508	**1,519**	0.7%
Lost-time claims involving modified work	448	**394**	-12.1%
Disabling injury claims	1,857	**1,861**	0.2%
Disabling injury rate	**3.72**	**3.39**	**-9.0%**
Days-lost (LTC)	16,946	**16,731**	-1.3%
Compensation payments (LTC)	$6,243,958	**$7,192,424**	15.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Roadbuilders

The lost-time claim rate for the Roadbuilders sub-sector decreased by 2.6% in 2010, to 1.18 per 100 person-years worked. This is a result of the number of lost-time claims increasing by 3.3% and the person-years worked increasing by 6.0%, meaning proportionally there were fewer injury claims.

For all Construction and Construction Trade Services industries, the average lost-time claim rate fell by 40.4% since 2006. The lost-time claim rate fell by 40.5% in the Roadbuilders sub-sector over this period.

Table 2.6
Roadbuilders — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	43,039	**45,634**	6.0%
Lost-time claims	522	**539**	3.3%
Lost-time claim rate	**1.21**	**1.18**	**-2.6%**
Modified-work claims	993	**1,069**	7.7%
Lost-time claims involving modified work	235	**256**	8.9%
Disabling injury claims	1,280	**1,352**	5.6%
Disabling injury rate	**2.97**	**2.96**	**-0.4%**
Days-lost (LTC)	22,004	**21,338**	-3.0%
Compensation payments (LTC)	$8,327,084	**$8,998,809**	8.1%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Roofers

In 2010, the Roofers sub-sector experienced a 1.4% increase in the lost-time claim rate, to 2.96 per 100 person-years worked, and a 4.2% decrease in the disabling injury rate to 4.66 per 100 person-years worked. The increase in the lost-time claim rate was the result of lost-time claims increasing by 17.7% and person-years worked increasing by 16.2%.

Over the last five years, the lost-time claim rate decreased by 37.9% in the Roofers sub-sector. For all Construction and Construction Trade Services industries, the average lost-time claim rate fell by 40.4% over this period.

Table 2.7
Roofers — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	6,359	**7,387**	16.2%
Lost-time claims	186	**219**	17.7%
Lost-time claim rate	**2.92**	**2.96**	**1.4%**
Modified-work claims	206	**221**	7.3%
Lost-time claims involving modified work	83	**96**	15.7%
Disabling injury claims	309	**344**	11.3%
Disabling injury rate	**4.86**	**4.66**	**-4.2%**
Days-lost (LTC)	9,378	**11,679**	24.5%
Compensation payments (LTC)	$2,463,034	**$3,525,867**	43.2%

Data Source: WCB Data, Prepared by Data Development and Evaluation

Scaffolders

The lost-time claim rate for the Scaffolders sub-sector decreased by 38.8%, to 0.47 per 100 person-years worked in 2010, while the disabling injury rate decreased by 39.9%, to 2.76 per 100 person-years worked.

The decreases in the lost-time claim rate and disabling injury rate were the result of the number of claims decreasing. In 2010, the person-years worked increased by 26.6%, while lost-time claims decreased by 22.5% and disabling injury claims decreased by 23.9%.

Table 2.8
Scaffolders — Alberta: 2009-2010

	2009	2010	% Change
Person-years worked	5,179	**6,557**	26.6%
Lost-time claims	40	**31**	-22.5%
Lost-time claim rate	**0.77**	**0.47**	**-38.8%**
Modified-work claims	226	**177**	-21.7%
Lost-time claims involving modified work	28	**27**	-3.6%
Disabling injury claims	238	**181**	-23.9%
Disabling injury rate	**4.60**	**2.76**	**-39.9%**
Days-lost (LTC)	1,330	**1,133**	-14.8%
Compensation payments (LTC)	$495,137	**$529,241**	6.9%

Data Source: WCB Data, Prepared by Data Development and Evaluation

DEMOGRAPHICS OF INJURED WORKERS

Injured Worker Characteristics

By occupational group, construction trades accounted for 31.1% of lost-time claims and 26.8% of disabling injury claims in the Construction and Construction Trade Services industries in 2010. These workers accounted for 23.5% of those in employment in the Construction sector. Trades helpers, construction, and transportation labourers and related occupations had the largest difference between the proportion of claims and employment, accounting for 24.1% of lost-time claims, 23.8% of disabling injury claims and 14.9% of those in employment. In contrast, Contractors and supervisors in trades and transportation made up 2.0% of lost-time claims and 2.0% of disabling injury claims and 10.0% of employment (see Table 3.1).

Table 3.1
Lost-Time Claims and Disabling Injury Claims by Selected Occupation Group for the Construction and Construction Trade Services Industries — Alberta: 2010

Occupation Group	Lost-time Claims	Disabling Injury Claims	Employment
Construction Trades	31.1%	26.8%	23.5%
Trades Helpers, Construction, and Transportation Labourers and Related Occupations	24.1%	23.8%	14.9%
Machinists, Metal Forming, Shaping and Erecting Occupations	6.5%	8.2%	4.0%
Stationary Engineers, Power Station Operators and Electrical Trades and Telecommunications Occupations	5.6%	8.8%	10.8%
Transportation Equipment Operators and Related Workers, Excluding Labourers	4.2%	3.6%	2.2%
Heavy Equipment and Crane Operators Including Drillers	4.5%	5.0%	6.5%
Other Trades N.E.C.*	3.1%	2.3%	1.7%
Mechanics	2.7%	3.2%	2.9%
Contractors and Supervisors in Trades and Transportation	2.0%	2.0%	10.0%
All Other Occupations	16.3%	16.4%	23.6%

*Not Elsewhere Classified
Data Source: WCB Data, Prepared by Data Development and Evaluation; Statistics Canada, Labour Force Survey (Microdata Files)

In 2010, young workers, those aged 15 to 24, accounted for 19.1% of lost-time claims and 21.4% of disabling injury claims (see Table 3.2), while accounting for approximately 16.7% of those in employment[2].

Table 3.2
Lost-Time Claims and Disabling Injury Claims by Age for the Construction and Construction Trade Services Industries — Alberta: 2009-2010

Age	2009				2010			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
15-19 Years	183	3.9%	448	4.2%	**162**	**3.7%**	**423**	**4.3%**
20-24 Years	678	14.4%	1,748	16.4%	**683**	**15.5%**	**1,691**	**17.1%**
25-34 Years	1,370	29.1%	3,228	30.3%	**1,241**	**28.1%**	**3,020**	**30.6%**
35-44 Years	1,021	21.7%	2,232	21.0%	**888**	**20.1%**	**1,961**	**19.9%**
45-54 Years	932	19.8%	2,005	18.8%	**874**	**19.8%**	**1,778**	**18.0%**
55-64 Years	406	8.6%	819	7.7%	**434**	**9.8%**	**813**	**8.2%**
65+ Years	123	2.6%	168	1.6%	**136**	**3.1%**	**179**	**1.8%**
Unspecified	1	N/A	1	N/A	**1**	**N/A**	**1**	**N/A**
Total	**4,714**	**100.0%**	**10,649**	**100.0%**	**4,419**	**100.0%**	**9,866**	**100.0%**

Note: Claims with unspecified age data have been removed from proportions.
Data Source: WCB Data, Prepared by Data Development and Evaluation

In the Construction and Construction Trade Services industries, the majority of lost-time claims and disabling injury claims were from men. In 2010, 94.0% of lost-time claims and 93.1% of disabling injury claims involved men (see Table 3.3). The proportions of injuries roughly reflect the labour market composition of the Construction industry where men comprise approximately 87.6% of those in employment.

Table 3.3
Lost-Time Claims and Disabling Injury Claims by Gender for the Construction and Construction Trade Services Industries — Alberta: 2009-2010

Gender	2009				2010			
	Lost-Time Claims	%	Disabling Injury Claims	%	Lost-Time Claims	%	Disabling Injury Claims	%
Women	302	6.4%	730	6.9%	**264**	**6.0%**	**682**	**6.9%**
Men	4,412	93.6%	9,890	93.1%	**4,154**	**94.0%**	**9,147**	**93.1%**
Unspecified	0	N/A	29	N/A	**1**	**N/A**	**37**	**N/A**
Total	**4,714**	**100.0%**	**10,649**	**100.0%**	**4,419**	**100.0%**	**9,866**	**100.0%**

Note: Claims with unspecified gender data have been removed from proportions.
Data Source: WCB Data, Prepared by Data Development and Evaluation

[2] Statistics Canada's Labour Force Survey for the Construction sector (2010 Historical Review). For further information see the Occupational Injuries and Diseases in Alberta Young Workers publication.

INJURY AND DISEASE ANALYSIS

Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part in the Construction and Construction Trade Services industries.

Nature of Injury or Disease

The nature of injury is used to identify the physical characteristics of the injury or disease. In 2010, 92.8% of all the lost-time claims and 95.2% of disabling injury claims were caused by traumatic injuries and disorders. The four most common traumatic injuries and disorders were: sprains, strains and tears, fractures and dislocations, surface wounds and bruises, and open wounds (see Table 4.1).

Note 4.1
Throughout this section, the classifications used are based on the Canadian Standards Association (CSA) standards for categorizing occupational injury and disease information.
The CSA standard is designed so that Nature of Injury and Part of Body categories are directly linked when classifying injuries. This is also true for the relationship between the Source of Injury and Type of Event categories.

Table 4.1
Nature of Injury or Disease — Alberta: 2010

Nature of Injury	Lost-Time Claims	%	Disabling Injury claims	%
Traumatic Injuries and Disorders	**4,102**	**92.8%**	**9,393**	**95.2%**
Sprains, Strains and Tears	1,904	43.1%	4,707	47.7%
Fractures and Dislocations	679	15.4%	998	10.1%
Open Wounds	471	10.7%	1,260	12.8%
Surface Wounds and Bruises	481	10.9%	1,276	12.9%
Burns	76	1.7%	138	1.4%
Other Traumatic Injuries and Disorders	491	11.1%	1,014	10.3%
Systemic Diseases and Disorders	**293**	**6.6%**	**427**	**4.3%**
Infectious and Parasitic Disorders	**1**	**<0.1%**	**3**	**<0.1%**
Neoplasms, Tumors and Cancer	**5**	**0.1%**	**5**	**<0.1%**
Symptoms, Signs and Ill-Defined Conditions	**6**	**0.1%**	**18**	**0.2%**
Multiple Diseases, Conditions and Disorders	**1**	**<0.1%**	**1**	**<0.1%**
Other Diseases, Conditions and Disorders	**6**	**0.1%**	**6**	**<0.1%**
Nature of Injury - Unknown	**5**	**0.1%**	**13**	**0.1%**
Total	**4,419**	**100.0%**	**9,866**	**100.0%**

Data Source: WCB Data. Prepared by Data Development and Evaluation

Part of Body Injured

In 2010, the trunk was the most commonly injured body part, accounting for 35.1% of the total lost-time claims and 33.4% of disabling injury claims in the Construction and Construction Trade Services industries. For lost-time claims, this was followed by injuries to the lower extremities, 24.0%. For disabling injury claims, the upper extremities was the next most commonly injured body part, 29.0%. The most common trunk injury was to the back, including spine and spinal cord, accounting for 20.3% of the total lost-time claims and 20.2% of total disabling injury claims (see Table 4.2).

Table 4.2
Part of Body Injured — Alberta: 2010

Part of Body Injured	Lost-Time Claims	%	Disabling Injury Claims	%
Trunk	**1,551**	**35.1%**	**3,292**	**33.4%**
Back, Including Spine, Spinal Cord	895	20.3%	1,988	20.2%
Other Trunk	656	14.8%	1,304	13.2%
Lower Extremities	**1,060**	**24.0%**	**2,302**	**23.3%**
Leg(s)	518	11.7%	1,132	11.5%
Ankle(s) and Foot (Feet) Except Toes	513	11.6%	1,101	11.2%
Other Lower Extremities	29	0.7%	69	0.7%
Upper Extremities	**1,004**	**22.7%**	**2,864**	**29.0%**
Finger(s), Fingernail(s)	341	7.7%	1,135	11.5%
Wrist(s) and Hand(s) Except Finger(s)	391	8.8%	1,059	10.7%
Other Upper Extremities	272	6.2%	670	6.8%
Head	**421**	**9.5%**	**729**	**7.4%**
Other Head Parts	278	6.3%	412	4.2%
Eye(s)	143	3.2%	317	3.2%
Multiple Body Parts	**280**	**6.3%**	**440**	**4.5%**
Neck, Including Throat	**75**	**1.7%**	**198**	**2.0%**
Body Systems	**27**	**0.6%**	**39**	**0.4%**
Part of Body - Unknown	**1**	**<0.1%**	**2**	**<0.1%**
Total	**4,419**	**100.0%**	**9,866**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

Source of Injury or Disease

In 2010, the two primary sources of lost-time claims in the Construction and Construction Trade Services industries were structures and surfaces, and persons, plants, animals and minerals accounting for 23.7% and 20.0% of total claims respectively. The most common source of disabling injury claims was persons, plants, animals and minerals at 21.5% of total disabling injury claims (see Table 4.3).

Table 4.3
Source of Injury or Disease — Alberta: 2010

Source of Injury	Lost-Time Claims	%	Disabling Injury Claims	%
Structures and Surfaces	**1,048**	**23.7%**	**1,895**	**19.2%**
Persons, Plants, Animals and Minerals	**885**	**20.0%**	**2,125**	**21.5%**
Person - Injured or Ill Worker	803	18.2%	1,940	19.7%
Minerals - Metallic or Nonmetallic (except fuel)	50	1.1%	106	1.1%
Person - Other Than Injured or Ill Worker*	9	0.2%	19	0.2%
Other Persons, Plants, Animals & Minerals	23	0.5%	60	0.6%
Parts and Materials	**773**	**17.5%**	**2,062**	**20.9%**
Tools, Instruments and Equipment	**421**	**9.5%**	**1,156**	**11.7%**
Hand Tools - Nonpowered	181	4.1%	558	5.7%
Hand Tools - Powered	89	2.0%	213	2.2%
Other Tools and Equipments	151	3.4%	385	3.9%
Vehicles	**285**	**6.4%**	**568**	**5.8%**
Machinery	**257**	**5.8%**	**491**	**5.0%**
Containers**	**244**	**5.5%**	**552**	**5.6%**
Chemicals and Chemical Products	**42**	**1.0%**	**87**	**0.9%**
Furniture and Fixtures	**69**	**1.6%**	**142**	**1.4%**
Other Sources	**335**	**7.6%**	**640**	**6.5%**
Source of Injury - Unknown	**60**	**1.4%**	**148**	**1.5%**
Total	**4,419**	**100.0%**	**9,866**	**100.0%**

*Person – other than injured or ill worker: classifies workplace injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.
**Containers: classifies receptacles commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.).
Data Source: WCB Data, Prepared by Data Development and Evaluation

Type of Event or Exposure

The two most common types of event or exposure comprised 64.0% of total lost-time claims and 72.7% of disabling injury claims in the Construction and Construction Trade Services industries in 2010. They are bodily reaction or exertion and contact with objects or equipment (see Table 4.4).

Table 4.4
Type of Event or Exposure — Alberta: 2010

Type of Event or Exposure	Lost-Time Claims	%	Disabling Injuries	%
Bodily Reaction or Exertion	**1,633**	**37.0%**	**3,990**	**40.4%**
Overexertion	736	16.7%	1,828	18.5%
Bodily Reaction*	616	13.9%	1,507	15.3%
Repetitive Motion	114	2.6%	268	2.7%
Other Bodily Reaction/Exertion	167	3.8%	387	3.9%
Contact with Objects or Equipment	**1,194**	**27.0%**	**3,187**	**32.3%**
Struck by Object	613	13.9%	1,574	16.0%
Struck against Object	216	4.9%	618	6.3%
Caught in Object	201	4.5%	565	5.7%
Rubbed or Abraded	69	1.6%	186	1.9%
Other Contact with Object/Equipment	95	2.1%	244	2.5%
Falls	**1,041**	**23.6%**	**1,761**	**17.8%**
Fall to Lower Level	506	11.5%	744	7.5%
Fall on Same Level	451	10.2%	876	8.9%
Other Falls	84	1.9%	141	1.4%
Transportation Accidents	**233**	**5.3%**	**413**	**4.2%**
Exposure to Harmful Substances	**267**	**6.0%**	**402**	**4.1%**
Assaults and Violent Acts	**11**	**0.2%**	**22**	**0.2%**
Assaults and Violent Acts by Person(s)	9	0.2%	14	0.1%
Other Assaults and Violent Acts	2	0.0%	8	0.1%
Fires and Explosions	**12**	**0.3%**	**14**	**0.1%**
Type of Event - Unknown	**28**	**0.6%**	**77**	**0.8%**
Total	**4,419**	**100.0%**	**9,866**	**100.0%**

*Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.
Data Source: WCB Data, Prepared by Data Development and Evaluation

Days-lost due to Disability

About 40% of lost-time claims involved days-lost between one and ten days. Lost-time claims with one to five days represented 27.8%, and six to ten days, 11.9% in 2010. Lost-time claims involving 51 days or more comprised 24.5% (see Table 4.5). For all sectors in the province, 13.9% of claimants were unable to work for 51 days or more. In addition, the Construction and Construction Trade Services averaged 36 days lost per claim and had a median days lost of 12, while the coinciding provincial figures were 23 and seven.

Table 4.5
Days-lost due to Disability — Alberta: 2010

Days-lost due to Disability	% of Construction and Construction Trade Services Industries' Lost-Time Claims	% of Lost-Time Claims in the Province
1-5 Days	27.8%	37.9%
6-10 Days	11.9%	13.6%
11-15 Days	7.4%	7.5%
16-20 Days	4.7%	4.9%
21-30 Days	7.0%	6.5%
31-40 Days	5.1%	4.7%
41-50 Days	4.4%	3.5%
51 Days or More	24.5%	13.9%
Unspecified	7.3%	7.4%

Data Source: WCB Data, Prepared by Data Development and Evaluation

OCCUPATIONAL FATALITIES

In 2010, the WCB accepted 59 fatalities in the Construction and Construction Trade Services industries.

In 2010, 11 fatalities accepted by the WCB were motor vehicle incidents, 10 were workplace incidents and 38 fatalities were occupational disease in the Construction and Construction Trade Services industries (see Table 5.1).

Table 5.1

Types of Occupational Fatalities Accepted by the WCB – Alberta: 2006-2010

Year	Motor Vehicle Incident		Workplace Incident		Occupational Disease		Total
	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2006	9	19.6%	14	30.4%	23	50.0%	46
2007	6	11.8%	20	39.2%	25	49.0%	51
2008	16	25.0%	20	31.3%	28	43.8%	64
2009	2	5.9%	15	44.1%	17	50.0%	34
2010	**11**	**18.6%**	**10**	**16.9%**	**38**	**64.4%**	**59**
Total	44	17.3%	79	31.1%	131	51.6%	254

Data Source: WCB Data, Prepared by Data Development and Evaluation

Between 2006 and 2010, the WCB accepted 254 fatalities in the Construction and Construction Trade Services industries. The Industrial Construction sub-sector had the most with 67 accepted fatalities, and accounted for 26.4% of all fatalities in the Construction and Construction Trade Services industries (see Table 5.2).

Table 5.2
Construction and Construction Trade Services Industries Occupational Fatalities Accepted by the WCB by Sub-Sector – Alberta: 2006-2010

Sub-Sector	2006	2007	2008	2009	2010	Number of Fatalities	%
Construction Trade Services	7	10	9	13	**10**	49	19.3%
Doors and Glass Installation and Repair	1	0	0	0	**0**	1	0.4%
Industrial Construction	13	15	18	9	**12**	67	26.4%
Mechanical, Electrical and Insulation	9	10	16	5	**12**	52	20.5%
Roadbuilders	6	8	12	3	**11**	40	15.7%
Roofers	2	0	0	1	**2**	5	2.0%
Scaffolders	0	0	0	0	**1**	1	0.4%
Other Construction and Construction Trade Services	8	8	9	3	**11**	39	15.4%
Construction and Construction Trade Services	**46**	**51**	**64**	**34**	**59**	**254**	**100.0%**

Data Source: WCB Data, Prepared by Data Development and Evaluation

CERTIFICATE OF RECOGNITION

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are jointly issued by Certifying Partners and E&I[3].

In 2010, 9.1% of Construction and Construction Trade Services industries' employers were COR holders. These employers accounted for 66.5% of all person-years worked in the Construction and Construction Trade Services industries.

Table 6.1
Employers With Valid COR — Alberta: 2010

Sub-Sector	% of Total Employers Certified	% of Total Person-Years Certified
Construction and Construction Trade Services	**9.1%**	**66.5%**
Construction Trade Services	3.2%	31.1%
Doors and Glass Installation and Repair	8.1%	64.4%
Industrial Construction	10.8%	81.8%
Mechanical, Electrical and Insulation	9.9%	68.5%
Roadbuilders	18.1%	81.2%
Roofers	5.9%	50.8%
Scaffolders	31.0%	96.8%
Other Construction and Construction Trade Services	11.3%	67.5%

Data Source: WCB Data, Prepared by Data Development and Evaluation

In the Construction and Construction Trade Services industries, the lost-time claim rate for COR holders was 0.97 per 100 person-years worked in 2010, while the rate for non-COR holders was 2.26. For disabling injury rates, COR holders had a rate of 3.20 per 100 person-years worked, while the rate for non-COR holders was 2.99 (see Table 6.2).

Comparing COR holders against all non-COR holders provides useful information about each group, although it does not compare like-with-like. A COR is given to employers who develop health and safety programs that meet established standards, with this group seeing continued improvement in their lost-time claim rates. Some non-COR holders have good

[3] For more information on the COR program visit http://www.employment.alberta.ca/SFW/334.html

programs in place above this standard, whereas others do not. This makes evaluating improving health and safety trends less clear for this group.

Table 6.2
Lost-Time Claim and Disabling Injury Rates for Construction and Construction Trade Services Industries COR Holders — Alberta: 2009-2010

Employer	Year	Number of Accounts	Lost-Time Claims	Disabling Injury Claims	Lost-Time Claim Rate	Disabling Injury Rate	Change in Lost-Time Claim Rate	Change in Disabling Injury Rate
COR	2009	4,645	2,332	7,323	1.19	3.73	-18.5%	-14.2%
	2010	4,741	2,027	6,703	0.97	3.20		
Non-COR	2009	46,983	2,530	3,325	2.37	3.12	-4.6%	-4.2%
	2010	47,614	2,392	3,163	2.26	2.99		

Data Source: WCB Data, Prepared by Data Development and Evaluation

REFERENCES

Alberta Employment and Immigration. "Occupational Injuries and Diseases in Alberta 2010 Summary."

Canadian Standards Association. Z795-03: Coding of Work Injury or Disease Information, June 2003.

Statistics Canada's Labour Force Survey (2010 Historical Review).

The Workers' Compensation Board - Alberta. "Rate and Industry Description Manual".

APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim

A lost-time claim (LTC) is a claim for an occupational injury or disease that causes the worker to have time away from work beyond the day of injury. Included are claims receiving reimbursement of full or partial lost wages due to occupational illness or injury, or payment for permanent loss of function.

Modified Work Claim

A modified work claim is a claim for an occupational injury or disease where a worker had their normal work duties altered to enable them to remain working without losing time from work. Also included are claims where injured workers are helped back into the workplace with modified duties after time lost due to injury or disease.

Disabling Injury Claim

Disabling injury (DI) claims combine both the lost-time and modified work concepts to produce an overall figure where an occupational injury or disease disables the worker causing either time-lost from work or for their normal work duties to be modified.

Person-Years Worked

Person-years worked are estimates provided by the WCB. One person-year is equivalent to one full-time worker working for one year, and can be assumed to equal 2,000 hours worked.

Lost-Time Claim Rate

The lost-time claim rate is calculated by dividing the number of lost-time claims by the person-years worked estimate, and multiplying the result by 100. The lost-time claim rate represents the probability or risk of an injury or disease to a worker during a period of one-year work, which will result in time lost from work. Comparisons of lost-time claim rates between industries, or between years, can be used to indicate increases, decreases, or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTC's}}{\text{Person-years worked}} \times 100$$

Disabling Injury Rate

The disabling injury rate is calculated by dividing the number of disabling injury claims by the person-years worked estimates, and multiplying the result by 100. The disabling injury rate represents the probability or risk of a disabling injury or disease to a worker during a period of one year of work. The disabling injury rate is similar to the

LTC rate although it covers a broader range of injuries, including those that are less severe in nature (do not require time away from work). The rate represents the number of claims per 100 person-years worked and includes claims made for both lost-time and modified work.

$$\text{Disabling Injury Rate} = \frac{\text{Number of DI's}}{\text{Person-years worked}} \times 100$$

Days-lost

The days-lost is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from the WCB. Alberta Employment and Immigration obtains these data on March 31 of the year following the claim year, and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the days-lost information reported here underestimates the true impact of lost-time injury and disease, although it provides a consistent method for reporting and observing trends in days-lost.

Industry Coverage

This report focuses on all industry activity in Alberta covered by the WCB and by the provincial legislation for occupational health and safety. Most industry sectors are included but notable exceptions consist of the Government of Canada, and parts of the agriculture and finance sectors. Several professional groups (i.e. the teaching and medical professions) are also excluded as are some industries where WCB coverage is not compulsory.

WCB Accepted Fatality

An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Labour Force Survey

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada. The objectives of the LFS have been to divide the working-age population into three mutually exclusive classifications - employed, unemployed, and not in the labour force - and to provide descriptive and explanatory data on each of these categories. Data from the survey provide information on major labour market trends such as shifts in employment across industrial sectors, hours worked, labour force participation and unemployment rates.

For the most part, annual LFS data has been analyzed alongside injury and disease information to aid the understanding of injury risk or frequency by worker type. The LFS uses a different industry classification from WCB, although there are similarities in structure.

Where possible, the two data sources are used comparably and proportions (of totals) have been used to evaluate information generated from both sources. Using proportions attempts to overcome obvious distortions in the numbers in employment from both sources, although the impact on the proportions from industry coverage differences is unclear. In certain instances, monthly LFS micro-data files have been combined and used to produce proportion estimates for the whole year for particular sub-groups of the population.

For further information on the LFS, please see
http://www.employment.alberta.ca/BI/2599.html

APPENDIX B: CONSTRUCTION AND CONSTRUCTION TRADE SERVICES INDUSTRIES WCB INDUSTRY CODES

1. Construction Trade Services

02100 – Landscaping Including Maintenance
40401 – Construction, Residential
40405 – Residential General Contractor
42111 – Painting and Decorating
42113 – Tile and Terrazzo, Sales/Installation
42115 – Paving Stone, Sales/Installation
42125 – Floor Covering, Sales/Installation
42133 – Cabinets and Counters, Assembly/Installation
42135 – Drywall, Plaster, Lath and Stucco, Sales/Installation
42141 – Acoustic Materials, Sales/Installation
42143 – Wood Framing
42147 – Finishing Carpentry
42155 – Moving of Buildings

2. Doors/Glass Installation and Repair

30302 – Overhead Doors, Installation/Repair
42121 – Door and Window, Manufacturing/Installation

3. Industrial Construction

40400 – Construction and Industrial General Contracting
42105 – Prefabricated Steel Structures Erect/Removal
42106 – Structural Steel Erect
42109 – Stationary Machinery or Equipment, Installation/Service
42120 – Sandblasting
42129 – Industrial Plant Maintenance
42156 – Storage Tanks Erect/Dismantle
42159 – Piling, Caisson Operations and Foundation Boring
42161 – Precast Concrete Erect/Installation
51504 – Cathodic Protection Services
62302 – Machinery or Equipment–NEC, Sales/Service/Repair
86911 – Manpower Services– Industrial Labour
89401 – Welding
89605 – Service Station Equipment, Sales/Installation/Repair
89928 – Scaffolding and Tower Cranes, Rental/Erect

4. Mechanical, Electrical and Insulation

31508 – Servicing of Overhead Cranes
42110 – Elevators and Escalators – Installation and Service

42117 – Heating Systems – Fabrication and Installation
42122 – Mechanical Contracting
42124 – Electric Wiring
42144 – Fire Sprinklers – Installation and Services
42184 – Mechanical Insulation
89600 – Refrigeration Equipment – Sales and Services

5. Roadbuilders

40602 – Paving and Surfacing
40604 – Mobile Equipment Operations, Road Construction

6. Roofers

42118 – Roofing
42151 – Siding, Soffit, Eavestrough, Fabrication/Installation

8. Scaffolders

89928 – Rental and Erection of Scaffolding and Tower Cranes

CONTACT INFORMATION

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Employment and Immigration website:

http://employment.alberta.ca

Work Safe Alberta website:

www.worksafe.alberta.ca

Workplace Health and Safety Contact Centre:

Telephone: 780-415-8690, toll free by calling 1-866-415-8690

http://www.employment.alberta.ca/SFW/2874.html

Certificate of Recognition (COR) Program:

http://www.employment.alberta.ca/SFW/334.html